January 20, 1955

Dr. Marcus Brookes
Dept. of Bacteriology & Immunology
Harvard Medical School
Boston 15, Mass.

Dear Dr. Brookes:

Thank you for your letter of January 15. In the course of her work on lactose-negative mutations in E. coli K-12, Mrs. Lederberg so frequently ran into mutants which require both thiamin and adenine that we have little question that these two requirements are the result of a mutation of a single gene. Whether this can be resolved in terms of a common biochemical pathway ought to be determined.

Unfortunately we have not kept any of the mutants of these category primarily because they tend to grow rather poorly on our stock media and we had no evident present use for them. We could not, therefore, furnish them out of current stock.

I believe that Dr. Bernard Davis has also run into these mutants rather frequently, and perhaps he has kept some that he would be willing to send to you. As an alternative, however, we can keep a lookout for such mutants and send them to you at a later date.

Your second request was for mutants which might need thiamin or purine. I am not clear whether you are looking for mutants which have alternative requirements for these two substances, of which we have never seen any, or different mutants which might require one or the other. If the latter, we can furnish stocks which carry either thiamin dependence or purine dependence in combination, unfortunately, with other auxotrophic markers. Please let me know your pleasure.

Thank you for your good wishes, which we return. I regret I will not have an opportunity to attend the bacteriology meetings and will see you then at some later time.

Yours sincerely,

Joshua Lederberg
Professor of Genetics

JL:mg